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ABSTRACT

ENHANCING THE LEARNING ENVIRONMENT AND PHYSICAL
FEATURES OF THE COLLEGE CLASSROOM ARE DISCUSSED IN THE LIGHT OF
EDUCATIONAL PROGRAMING. CONCEPTS AND PRINCIPLES FOR PLANNING ACADEMIC
FACILITIES AND PROGRAMS ARE GIVEN, INCLUDING THE INSTRUCTOR
JURISDICTION PRINCIPLE IN CLASSROOM USAGE. THE PHYSICAL AND
PSYCHOLOGICAL DESIGN NEEDS FOR A LEARNING ENVIRONMENT ARE OVERVIEWED
WITH EMPHASIS ON EFFICIENCY AND ECONOMY THROUGH FREEDOM AND
FLEXIBILITY OF FACILITY AND PROGRAM. FACILITY STANDARDS, GUIDELINES
AND DRAWINGS ARE INCLUDED. (TG)

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THE "INTERPRETIVE" CLASSROOM

A teaching environment designed to represent the intellectual skill and aesthetic appreciation of the educator and his discipline.

DIKRAN J. MARTIN

Instructional Research and Development Paper
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THE "INTERPRETIVE" CLASSROOM

INTRODUCTION

Enhancing the Learning Environment of the Classroom

College classrooms should be designed to give attention and awareness to learning, thinking, and problem-solving behaviors of educators and students. By giving careful consideration to the educational design of classrooms, educators can create environments that will extend for the individual student a range of working conditions which will serve to elicit his very best efforts at reasoning, discovery, and skill development. The educational design of classrooms should accentuate a behavioral environment for educator and student that offers the *potentialities of unbounded functioning and infinite flexibility*. The basic theme of *efficiency and economy through freedom and flexibility* is as important and valid for the INTERPRETIVE CLASSROOM as it is for the ACTION OFFICE (an accompanying paper). Modern college classrooms must be built so that they are compatible with the real and articulated needs and requirements of educators and students; they must not be designed by non-educators who assume they understand the physical and psychological conditions of learning. The comments to follow regarding the educational design of the INTERPRETIVE CLASSROOM are general propositions since certain modifications would need to be considered for each academic discipline. For example, the mathematics instructor may wish to emphasize certain specifications in his classroom (i.e., considerable blackboard space) that the history instructor would find unnecessary. But whatever specification the mathematics or history instructor would require in their classroom, both require an environment of learning that encourages and accelerates the accomplishments of the individual student.

Physical Features of the College Classroom Designed to Enhance Learning

The modern college classroom should be adaptable to various modes of instruction and learning. The greatest single handicap of the classrooms on many college campuses is that they are so stylized that they lend themselves to a single technique of instruction — *the lecture — demonstration method*.

This writer proposes that classrooms planned for institutions of higher learning be constructed to accommodate the *lecture-demonstration method* and additionally the *conference-discovery method*.^{*} Recent innovations in the construction of multi-purpose and functionally flexible classroom furnishing are very impressive because they can free the college classroom from the stultifying effects of single-purpose design. An example, trapezoidal table arrangements and simple side arm chairs designed for adult usage can be quickly arranged for both lecture-demonstration and conference-discovery teaching methods.

Consider an important, but often hidden, economy in providing the classroom with furniture suitable for conference purposes. It cuts down on the number of special rooms the college will plan to build which are *only satisfactory for conferences and meetings*. In addition, remember that the well equipped EDUCATOR'S ACTION OFFICE is also designed for suitable conferences and meetings for groups of six to eight individuals.

There is still another economy in providing tables and side arm chairs instead of tablet arm chairs in college classrooms. Such rooms can be used more effectively by students during non-class hours for co-curricular activities, study and tutorial centers, and individual study (honors) programs. This will take a considerable burden off the college to provide special facilities for these exceedingly necessary programs.

Wall space must be useable space. Considerable bulletin, blackboard, cabinet and shelf space is an absolute necessity. These items provide the instructor with furnishings that he can use to sensitize the student with maps, charts, pictures, graphs and objects of all types that can be skillfully arranged to stimulate a greater awareness of the multiple dimensions of the academic discipline. Flexible sectional cabinets and shelves should be utilized for storage, work space and display purposes. Some cabinets now commercially available are so constructed that they can be re-arranged at any time as the classroom needs changing. Providing furnishings of this type again reinforces the efficiency and economy of freedom and flexibility in classroom construction when one compares them with the costly construction and inflexibility of single-use built-in cabinets, shelves, bookcases, display cases, and like fixtures attached to the classroom walls.

^{*}The *lecture-demonstration method* in higher education probably requires little explanation since academic discourse delivered before the student audience is an old, and familiar teaching technique of college faculty members. The *conference-discovery method* implies an extension of the seminar technique where small group encounters facilitate interpersonal experiences between students that foster independent learning, thinking, problem-solving, and aesthetic appreciation.

Finally, floor coverings in classrooms where caustic materials are not used by the instructor or the student are a decided improvement over the more traditional hard and noisy floors constructed of wood and asphalt tile.

If classrooms on the college campus are designed in accordance with the psychological principle of efficiency and economy through freedom and flexibility, if they are essentially multi-purpose, the college can look forward to using them at one hundred percent utilization.

Promoting the Healthy Attitude of "Instructor Jurisdiction" Regarding Classroom Use

The present attitude on the college campus regarding classroom use is probably best described as the *centralized scheduling method*. With the possible exception of some special equipment areas in the natural sciences and vocational-technical curricular areas, classrooms on the campus do not fall under the instructor's jurisdiction. The natural consequence of centralized scheduling is that the instructor feels no commitment to enhance the operating environment of the classrooms in which he teaches. A healthier psychological approach to classroom usage would be to give the classroom over to the jurisdiction of the instructor. The *instructor jurisdiction principle* regarding classroom use is a simple and efficient method of accelerating the dignity and proficiency of the teaching profession by allowing the faculty member the freedom and flexibility to create the most viable educational environment he knows how. The attitude of the instructor jurisdiction principle is reasonable and mature in education because it encourages the faculty member to develop his "home station" of instruction to the maximum. The instructor jurisdiction principle gives him the freedom and flexibility to teach his assigned courses during the hours he believes are best, to develop an environment for individual study (honors) programs, to help initiate co-curricular activities, and to set up conditions for tutorial instruction. If he is appointed to chair a college committee he no longer has to concern himself about finding a meeting room because he can use his own room.

There still are additional advantages of the instructor jurisdiction principle when one compares it to the usual centralized scheduling methods. It would reduce the student confusion about when and where classes convene. As a former counselor I know this factor is a more serious problem for students than most people understand. It would obviously reduce unnecessary and inefficient faculty travel and preparation time which is, at present, a serious encumbrance placed on college instructors. It would provide the evening college instructor, who has little opportunity to develop an acceptable climate for instruction, the advantage of teaching in a classroom suitable for in his discipline. The regular full-time instructor can assist the part-time evening college instructor by creating for him an enhanced operating environment that the evening instructor is not prepared to offer his students. Finally, the instructor jurisdiction principle will free the staff of an administrative office from tremendous burden of inefficient and costly semester by semester classroom assignment.

It is, of course, quite clear that the college cannot give each instructor a classroom for his exclusive use. Twelve to fifteen hours of instruction per week would not merit single instructor classroom use. What is possible, however, is a classroom scheduling program that would evolve around dual, not multiple, instructor use. Two instructors, preferably in the same or highly related disciplines, could share in the use of the classroom for instruction, meetings, individual study and tutorial programs, and co-curricular activities. Instead of the costly practices and unfortunate uncertainties of semester by semester scheduling decisions which are now made between many instructors in a variety of disciplines, arrangements for room scheduling can be

reduced to agreements between two and hopefully not more than three regular full-time faculty members. This plan of the instructor jurisdiction principle would be especially adaptable to the academic disciplines in the liberal arts and sciences which do not require restrictive single use classrooms designed with special stationary equipment.

The plans and principles forwarded regarding the EDUCATOR'S ACTION OFFICE (see accompanying paper) and INTERPRETIVE CLASSROOM should be viewed as a complementary arrangement which will improve the operating environment of the faculty member and the student in the collegiate system. The writer hopes that those who examine these papers will understand that attitudes regarding educator's offices and classroom design and function must be sophisticated far beyond the present levels of thinking about these environments. Higher education must meet its commitment to society by providing the very best educational programs educators can develop. The community wants the college to adopt high standards of efficiency and productivity on the part of professional educators and their students. There is no reason why these standards cannot be met and exceeded if educators commit themselves to some tough-minded planning designed to correct the physical and psychological operating conditions of faculty members and students.

THE "INTERPRETIVE" CLASSROOM

Statement on Standards

Interior size standards for the "Interpretive" Classroom. The following standards are for the classroom alone. Decide on preparation space external to the room on a separate basis.

Classroom Design for 25 Students

Room would contain 40 seating positions. Size is 1100 square feet.

Classroom Design for 30 Students

Room would contain 52 seating positions. Size is 1200 square feet.

Classroom Design for 36 Students

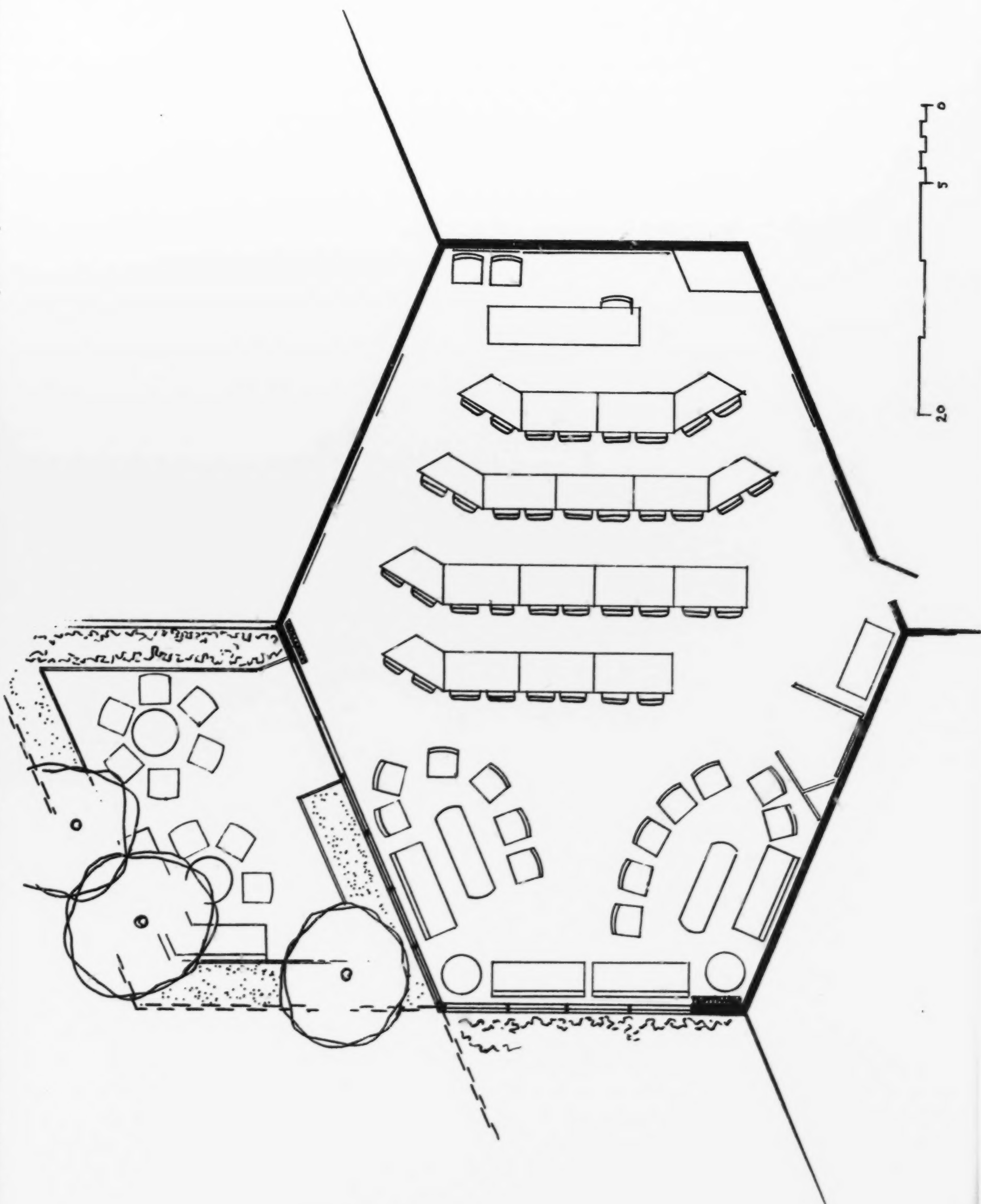
Room would contain 66 seating positions. Size is 1500 square feet.

The *space allocation per student* for this type of Classroom is approximately 40 square feet on a room designed for 25 students.

The *space allocation per seat* (including lecture-demonstration and conference area) is 23.5 square feet on a room designed for 25 students.

The *space allocation per student* and *per seat* may vary somewhat if the classroom is designed for fewer or more than 25 students.

The *space allocation per student* and *per seat* may vary somewhat if the *demonstration* and *preparation area* for the classroom is in excess of the amount identified in the attached floor plan.



LECTURE - DEMONSTRATION
AREA WITH TABLES & ARM CHAIRS

DISPLAY WALL

INSTRUCTIONAL
WALL

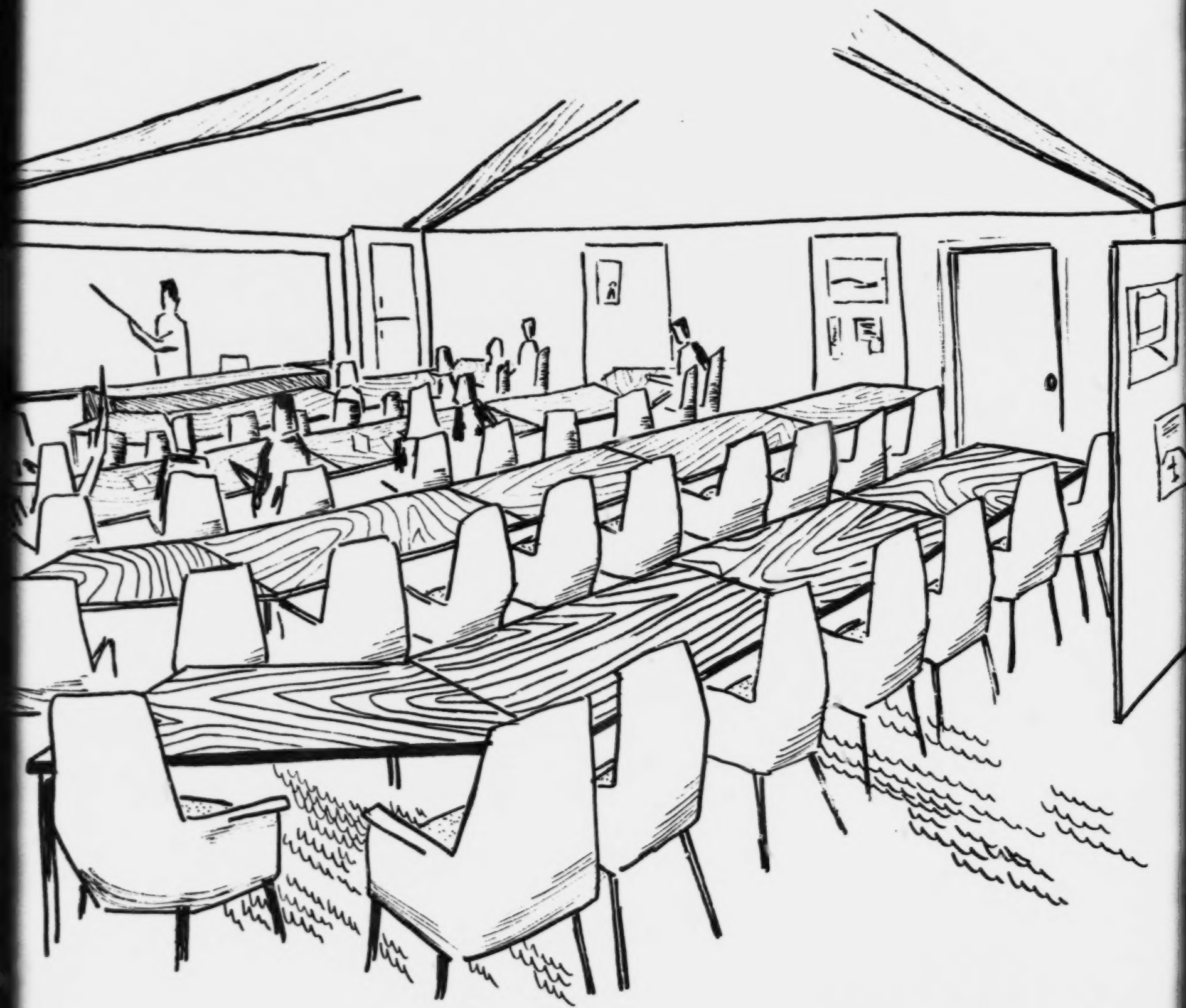
CABINET

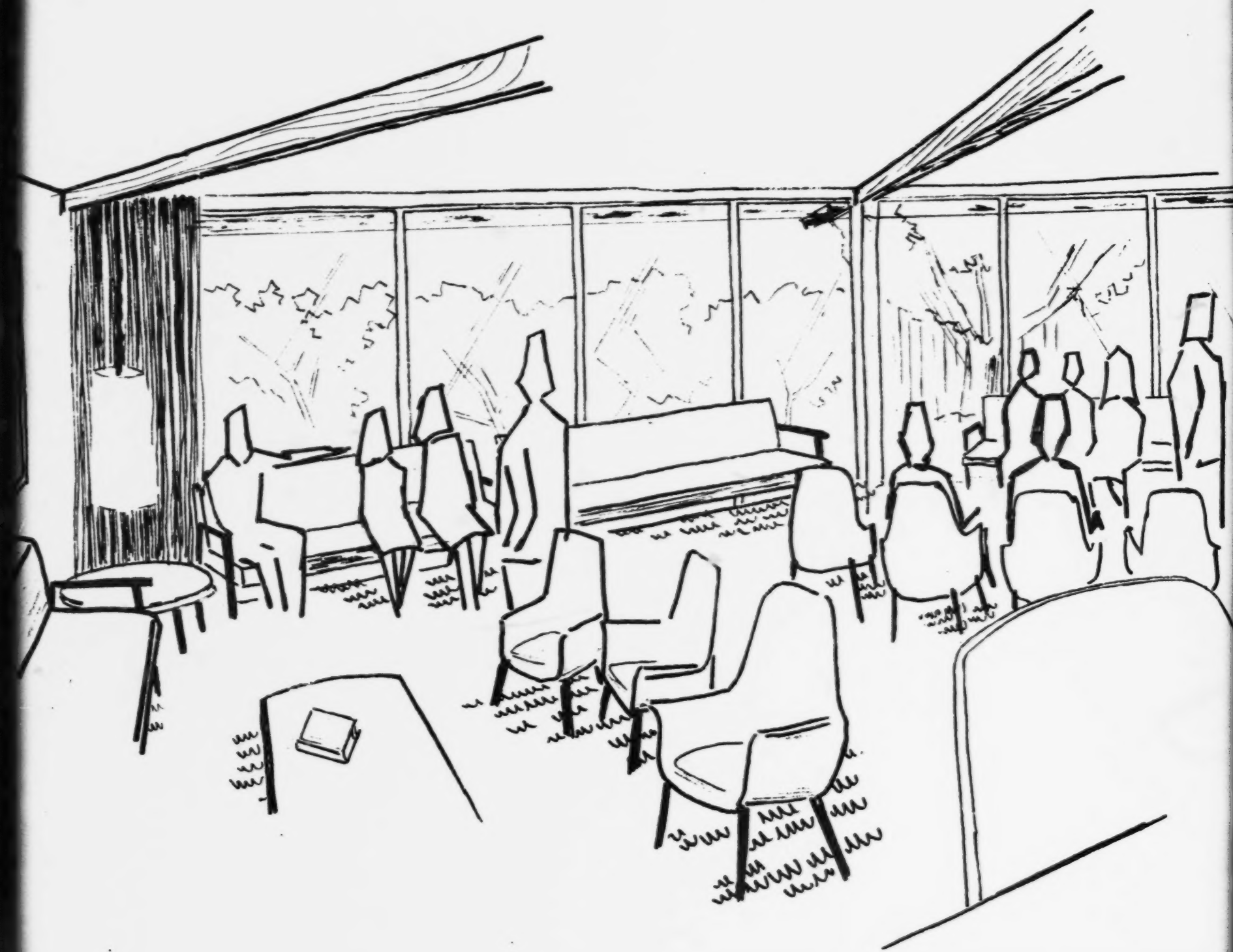
PATIO &
DISCUSSION AREA

CONFERENCE AREA
WITH LOUNGE
FURNITURE

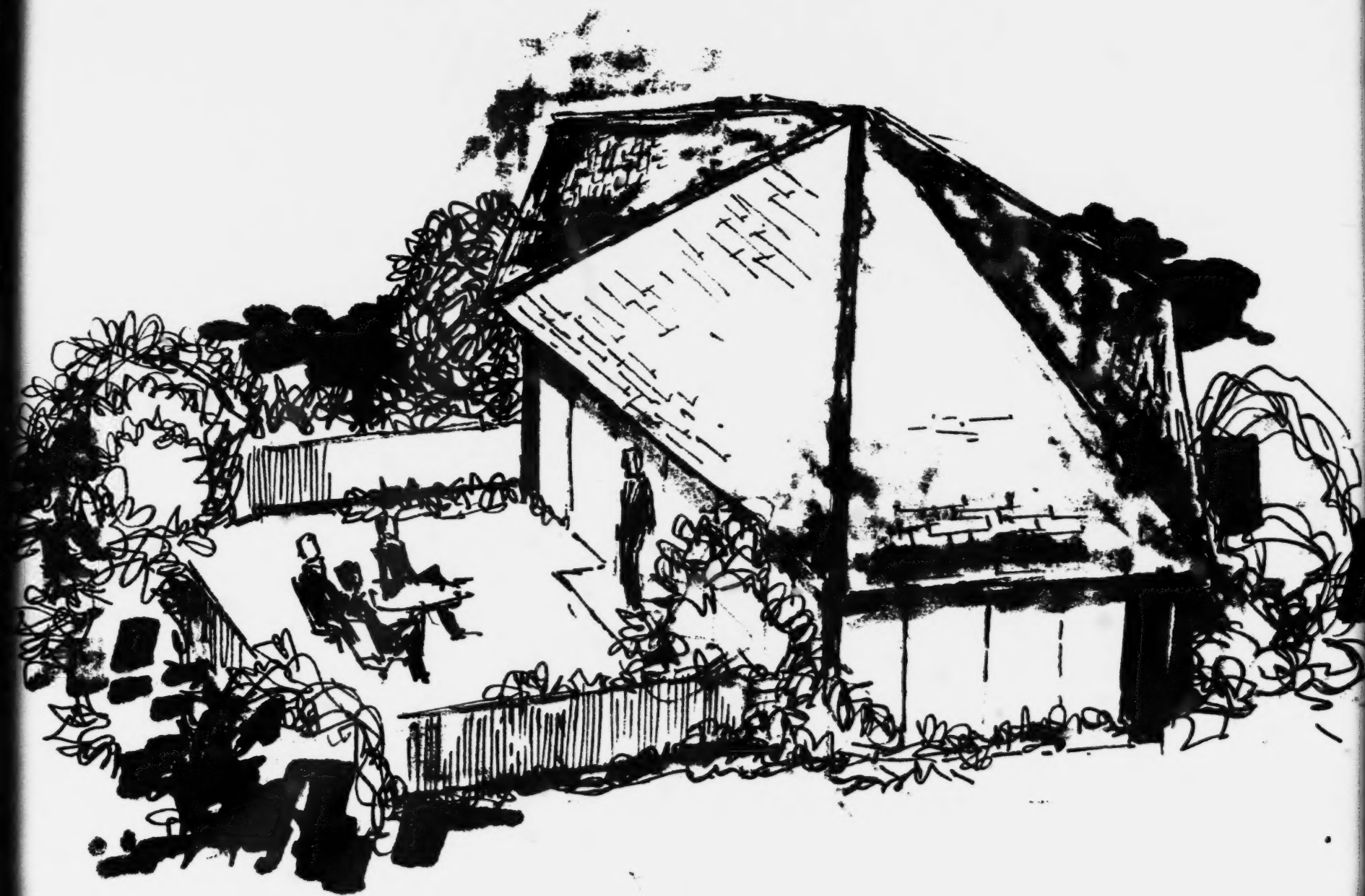
MOVEABLE
DISPLAY

GLASS



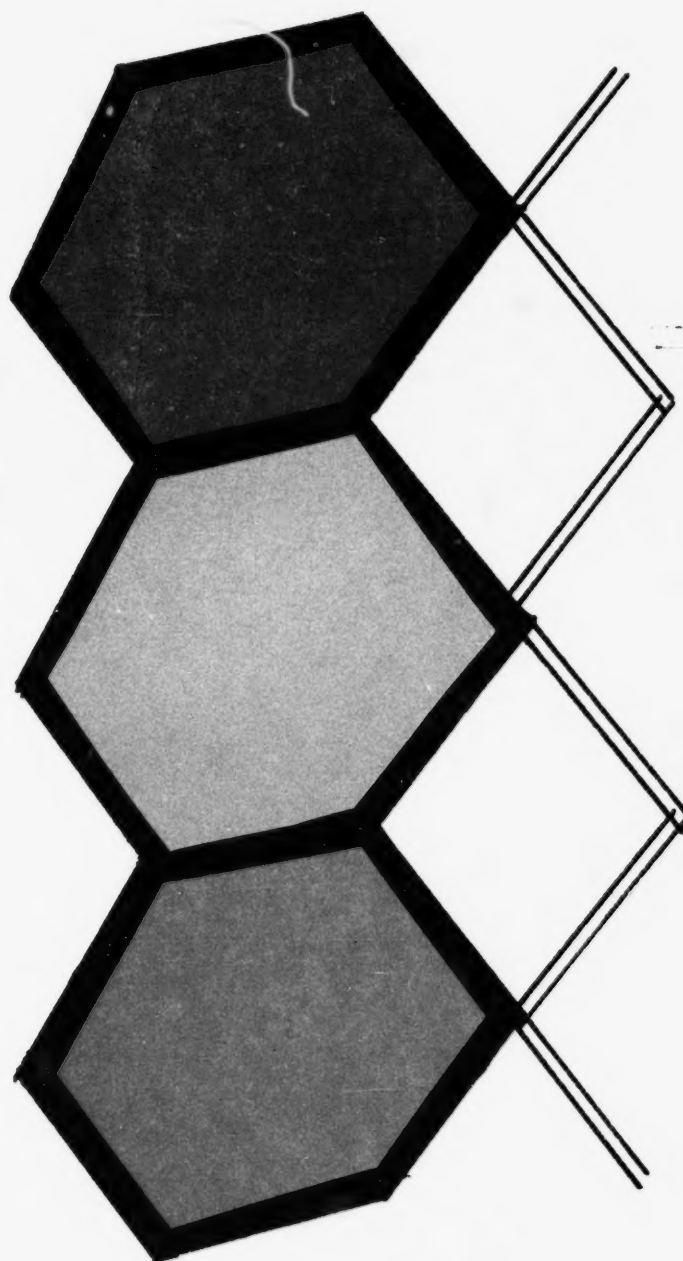








THE "INTERPRETIVE" CLASSROOM
Paradigm of Adjacent Units



A Conceptual Framework for Rational Academic Planning

Central Premise: Academic planning should be viewed as a process which sets a reliable and valid framework for offering *direction* and *leadership* to the development of the entire college system. It is *not* appropriate to conceive academic planning as a device for (a) rigidifying the course of progress of an institution; (b) imparting a specious quality of certainty, order, and serenity to the life of the institution; and (c) exerting pressure to conform to a firmly established institutional pattern. Academic planning is a continuing process—a progressive activity whereby those involved maintain a sensitivity to the *conditions that aid or hinder change*. This sensitivity helps the participants in educational planning activities to develop effective principles and strategies for improving all the programs and practices of the college system.

PRE-EMINENT SUPPOSITIONS

1. The faculty is in the best, indeed, the most responsible, position to develop well articulated *concepts* relative to a rationale for academic master planning.
2. The faculty should never allow institutional acceptance of academic master plans which impose schemes on the campus that they believe will create an *unacceptable dominance, direction, or control* over their behavior and the activities of their students.
3. Any theory of academic planning must be grounded in suppositions which reflect *expanded freedoms* for faculty members. The sincere and responsible educator wants to hear of plans which *broaden the college system* and make it more elastic. Plans for a college campus must be rejected by the faculty if they reflect "prescriptions" that are simply incompatible with *free and searching attitudes* of serious educators.
4. Concepts of educational planning need, therefore, to be more than *formulas for developing the college physical plant*. They should be based on underlying principles that reflect an intent to enhance the potentialities of professional educators and the students they serve.
5. The faculty should propose concepts for academic planning which clearly demonstrate *a theoretical understanding of the human processes which affect learning and positive personal change within the college system*. It is essential that the faculty be sufficiently influential to assure the development of academic master plans which will *actualize the greatest potential of students* during their experience in higher education.
6. It clearly falls upon the faculty to construct or invent norms for academic planning which will advance *healthy and successful collaborative relationships* among the entire professional staff.
7. Academic master plans must be devised around organizational mechanisms that initiate

and sustain attitudes which promote *curriculum improvement* and *innovation*. They should include mechanisms designed to throw off those restrictions which tend to attenuate the desire of faculty and students to reach for fruitful and productive activities.

DESIGN PROPOSITIONS

1. The needs and requirements of those people participating in the *teaching-learning transaction* (faculty and students) will always be thoroughly examined prior to any campus planning and development action which will affect them.
2. The principle of "efficiency through freedom and flexibility" will be recognized as a central premise in college planning and development activities.
3. Every consideration will be given to the condition of the *performing environment of the educator and his students*—an environment of learning, thinking and problem-solving—prior to the initiation of any college planning and development activity which will in any manner affect this environment.
4. Prior to the initiation of any college planning and development activity, the faculty and those students interested in the academic development of the institution, will combine their efforts to formulate a system of values regarding the educational design of classrooms, offices, laboratories, study areas and other *vicinities of instruction*.
5. *Classrooms shall be considered interpretive environments*—atmospheres which make manifest the range and depth of an academic discipline. They shall be designed and furnished in every case possible to give attention to the requirements of both the *lecture-demonstration* and *conference-discovery* modes of teaching, reasoning and skill development.
6. Space is the medium in academic planning. The spaces of a skillfully conceived campus will have the qualities of *fluidity* and *appropriate confinement* (privacy). It is this variety of fluidity and appropriate confinement that adds interest and beauty to a learning environment. Space is more important than the buildings which serve as a mold. Space should be a *positive* and *powerful* influence in the academic environment. Whether it is the planning of a new campus or the renovation of old facilities, the effectiveness of achieving the right kind of physical environment will depend upon the *subdivision and organization of space*.
7. Buildings are important, but not as important as the needs and requirements of the instructor, his students and their program. By far the greatest attention in academic planning should be given to the *interior development of academic facilities*. This does not minimize the importance of *enlightened thinking* in architectural (external facade) planning, but in the hierarchy of things in a tax-supported social institution,

people come before building blocks. The college campus should be space conscious, not building conscious.

8. *Form, function and funding* are the three faces of academic planning. These three are inseparable and they must be dealt with simultaneously. It does good to rank form, function, and funding in developing concepts regarding rational campus planning. Form does not follow function any more than function follows form. *Form allows function* and funding allows for them both. Propositions about campus planning must allow for a harmonious union of these three inseparables.
9. The form of buildings and their surrounding landscape must stem from *carefully formulated premises* which will enhance the beauty and increase the effectiveness of the academic environment. There must be *thinking before drawing*. Most architectural sketches are usually premature. Also, they appear too final. They are pretty far from reality and encourage a pretty picture approach to campus planning.
10. The campus and each of its buildings should be *planned more for flexibility than for permanence*. A successful academic environment is organic. It grows. If it does not grow it must change. In this rapid-changing academic world nothing stands still. Accordingly the campus master design must possess the qualities of *expansibility, convertibility and versatility*. Form must have flexibility. Form must allow for many functions because in higher education it is inevitable that the function (teaching styles, programs, student-teacher relationships) will change. Buildings must conform effectively and economically to these changes. Building for permanence in higher education is *not* rational academic planning; it is too costly.
11. A campus master design should reflect the *excitement and improvement in learning, thinking and problem-solving* that can be found in the highest form of democracy. The one place in the world for *free thinking and individual expression* should be the academic environment. The faculty should make architects more aware of the possibility that college buildings can have individuality, be generic, and yet belong to a system of order conducive to architectural compatibility. There should be no crystalized architectural styles for a college campus. The design and organization of campus programs differ; the architectural style should differ as well. The architectural structure must respond to the educational structure.
12. *Standardized academic planning in higher education will smother progress*. It makes no sense for the State to require everyone of its institutions to conform to a common pattern which comprises a system of higher education. Bold, fresh, imaginative, experimental, innovative ideas cannot develop in a system that standardizes space and utilization standards for campus planning.
13. The *individualization and personalization in learning* is developing into a very strong theme in higher education today. Individualization in learning implies that the

responsibility is being placed upon the individual student to achieve whatever learning is within his interest and capabilities. Personalization in learning implies that instructors are formulating new interpersonal skills and sensitivities designed to generate in students more productive attitudes and competencies toward learning, reasoning and skill development. New relationships are evolving between instructor and student and they must have facilities that won't get in their way.

14. Every building on the college campus should be *generic*. Not only should each building be flexible, but each should have a certain *distinguishable quality or property which accentuates the discipline*. Buildings constructed on the college campus should in every way possible *interpret the characteristic features* of the academic discipline or vocational-technical speciality for which they are designed.
15. In conclusion, it should be reaffirmed that the college campus must be an exciting place where many people want to get together, as well as a refuge for the individual scholar who wants the opportunity to probe deep without interference from others. There should be all kinds of spaces which respond to all kinds of activities. It should be a *living campus* in the truest sense.

Principles for Academic Planning and Program Development

1. The needs and requirements of those people participating in the *teaching-learning transaction* (faculty and students) will always be thoroughly examined prior to any campus planning and development action which will affect them.
2. The principle of "efficiency through freedom and flexibility" will be recognized as a central theme in college planning and development activities.
3. Due consideration will be given to the condition of the *performing environment* of the educator and his students—an environment of learning, problem-solving and thinking—prior to the initiation of any college planning and development activity which will affect this environment.
4. Prior to the initiation of any college planning and development activity, the faculty, and those students interested in the academic development of the institution, will combine their efforts to formulate a system of values regarding the educational design of classrooms, faculty offices, laboratories, study areas and other *vicinities of instruction*.
5. Every effort will be expended to develop the faculty member's office—termed the "Action" Office in the accompanying paper—as an atmosphere for the instructor to develop variations in the *conference and discovery approach to learning*. This office will be designed and furnished in a style which enhances *instructor-student communications* through the *personalization of learning*.
6. Classrooms shall be considered interpretive environments—atmospheres which make manifest the range and depth of an academic discipline. They shall be designed and furnished in every case possible to give attention to the requirements of both the *lecture-demonstration* and *conference-discovery* modes of teaching, reasoning and skill-development.
7. The *instructor jurisdiction principle*, as identified in this manuscript, will prevail as an attitude in campus planning and academic organization.

A Working Framework for Planning Academic Facilities

TERMINOLOGY WHICH MIGHT BE USEFUL IN WRITING CAMPUS PLANNING PROJECTS

- RCS** *Real Classroom Space*
Interior classroom space provided the discipline.
- RLS** *Real Laboratory Space*
Interior laboratory space provided the discipline.
- ROS** *Real Office Space*
Interior office space provided the faculty member.
- RPS** *Real Preparation Space*
Interior preparation space provided the faculty member.

Note: Identify all preparation space as such. Call no space storage for materials, equipment, audio-visual, etc.

- RDSS** *Real Departmental Service Space*
Actual space provisions for:
1. Departmental supportive staff.
 2. Departmental study and research space.
 3. Department chairman office space.
 4. Specialized rooms.

GUIDELINES

1. Real Classroom Space (RCS) per person should be 30 square feet for lecture-discussion-demonstration room using table or tablet-arm chair arrangements.
2. Real Office Space (ROS) per faculty members should be 150 square feet per instructor. Single office occupancy for instructors unless specific change is requested by faculty members affected.
3. Allow approximately 35% of room for aisle footage and instructor lecture and demonstration space.
4. Allow provision for seating arrangement so that students are not forced to sit closer than 8 feet to *instructional wall* (i.e., blackboard, tack board, viewing screen).

Note: Use *real space* in your planning concepts. Do not be confused by planning dialogue used by architects who ask you to accept formulas which grant you a certain amount to "instructional" space within the total design of the building.